January 2010

the wrench
Honda Technician Newsletter

iNformation

Using HISP on *iN*

The ***iN*** Honda Interactive Service Publications (HISP) is a valuable tool to assist you in working on Honda powersports models. Using a few key-strokes you can have information at your finger-tips to help you to efficiently, and correctly service and repair Honda motorcycles, scooters, ATV, MUV, and PWC.

The ***iN*** HISP database includes Service Manuals, Owner's Manuals, Service Bulletins, and *The Wrench* all in one place. One of the best features of the tool is your ability to refine your search to go directly to the information related to the model, year, and even component you need.

For instance, if you're working on a 2009 TRX420FPA, by accessing HISP you'll be able to:

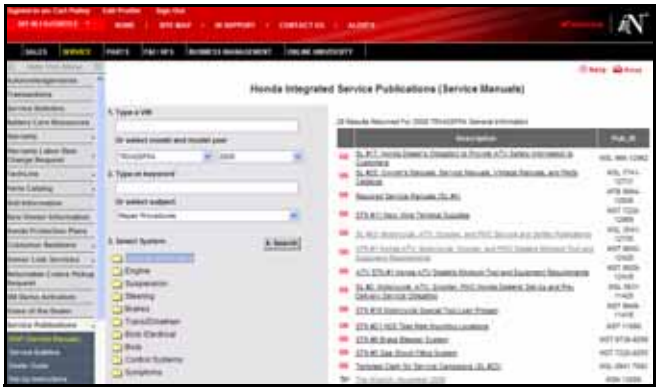
- Discover a helpful oil changing tip in the May 2009 issue of *The Wrench.*
- Reset the Oil Change Indicator from instructions in the *Owner's Manual*, which are not included in the *Service Manual*.
- Go directly to the related *Service Manual* section for any given DTC.
- Refine a search of the *Service Manual* to quickly find specific information about any given component, part, or system.

The above is just a small sample of the kinds of information you can easily access using HISP.

HISP offers several ways to find the information you're looking for. You can write in the unit's VIN or select the model and year of the unit. Then you can type in a keyword or select a subject to search for. The subjects are divided into Repair Procedures, DTC Troubleshooting, and Owner's Manuals. Under the Repair Procedure subject you're given a list of 10 system headings and from them sub-headings to further refine your search.

To access HISP, logon to ***iN*** and follow the path listed below.

Service > Service Publications > HISP (Service Manuals)



To get the full benefit of HISP, take some time to become familiar with the tool by trying all of its functions. Then, the next time you have a unit to service or repair, you'll be able to quickly access the service information you need.

All Models

Known Good Part Diagnostic Technique

A diagnostic technique to determine whether a suspect part has failed is to use a known good part. By replacing a suspect component for one that is known to be good allows you to determine if the original component is faulty. If the problem goes away once the known good part is used, then you know the original was bad. If the problem still exists, then you need to look elsewhere for the cause.

The technique can work very well, however there are two issues that can occur if not done correctly, one related to the diagnosis itself and the other related to Honda's Parts Return Guidelines.

For the diagnostic technique to be effective, you must use a verifiable known good part. The only way you can determine the part is good is to use one that is currently in service on another unit and is functioning correctly. For this reason a new part is not suitable for the technique.

If you use a new part for the diagnostic technique, and in most cases the part you are checking is an electrical component, you will not be able to return it to Honda for credit. As the Parts Return Guidelines state that electrical components returned to American Honda must be in their original unopened packages, if the package has been opened you will not be able to return it.

The known good part diagnostic procedure is a very good way to help you determine the cause of a problem. But remember to use a proper known good part rather than a new one.

On-Road

2006-2010 GL1800/A

Heated Grips and Seats Malfunction Diagnosis

If a customer complains that the grip and/or seat heaters of their GL1800 don't work, the following information will help you first determine if a problem exists, and then help you fix it if one does.

An understanding of the heated grip and seat system is essential to proper diagnosis. The heaters will not function without the engine running, and even then, the seat may not feel warm. That's because the seat foam must be compressed by the rider or passenger to feel the heat created by the heating elements. Also, the seat heaters do not turn on at ambient temperatures above approximately 65-70° F. The grip heaters work regardless of ambient temperature. With this information, you may determine that no problem exists and you'll need to educate the customer about how the heaters function.

The rider's seat and backrest are on one parallel circuit and the passenger seat and backrest on another. The grip heaters are in a series circuit. With all circuits turned on, if one or more circuits are open, the entire heater system will not work. Also, if any circuit is disconnected, even momentarily, the system will shut off. The key must be cycled off and back on, and the engine restarted before the system can operate again.

System malfunctions are most commonly due to poor pin-fits or connections at the Heater Control Unit (HCU), or an open grip circuit or connection.

Here are some quick troubleshooting tips:

1. The Honda pin-fit tool (P/N 07XMJ-001000A) is necessary for proper diagnosis. Select the blue-banded pin-fit tool to check the terminals of the HCU connector. You should feel a slight amount of drag as the pin-fit tool is pulled out.

   Note: these terminals are not available separately. If you find a loose pin-fit at this connector, contact Techline for detailed repair instructions before proceeding further. Damage to these terminals may require replacing the entire main harness.

2. Turn on all circuits and test continuity of the grip and seat circuits between the heater relay in the relay box and the HCU, located behind the left saddlebag (Service Manual page 21-77). Unplug the HCU and the heater relay and check continuity between the Yellow/Red wire of the heater relay connector, and each of the following HCU connector terminals:

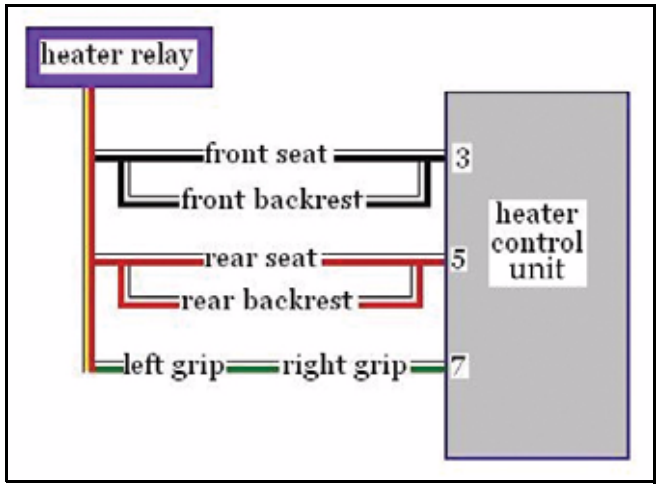
   - White/Black (pin #3) -rider seat and backrest circuit

- Red/White (pin #5) - passenger seat and backrest circuit
- White/Green (pin #7) - right grip and left grip circuit

Inserting the pin-fit tool in the proper terminal provides an easy spot to connect your meter lead (2-5 ohms resistance is normal).

3. An open in the front seat heater circuit may be caused by an aftermarket backrest that may have severed internal seat heater wires. An open in the grip circuit means you need to check the left and right grips individually. Remove the top shelter for access to the connectors near the cruise actuator (Service Manual page 3-23). On airbag models, the connectors are behind the right radiator.

This diagram shows the power path through the heated elements. With all heater circuits on and after the HCU detects continuity through all circuits, it provides the ground path to all circuits.

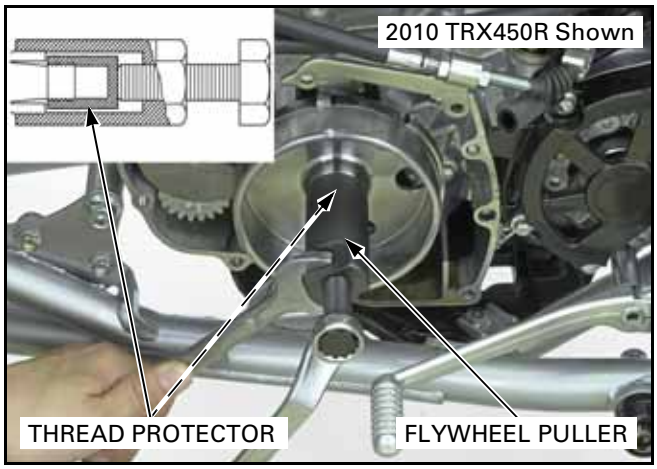


Note: This information augments the Service Manual and ETM, please refer to them for additional troubleshooting information.

The Tool Chest

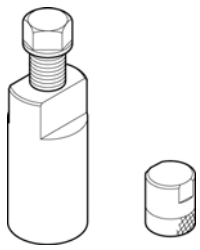
Flywheel Pullers & Shaft Protector Applications

When removing the flywheel of certain off-road motorcycle and ATV models, it is important to protect the crankshaft with a thread protector. If the flywheel puller is used without the protector, the oil orifice at the end of the crankshaft could be damaged and limit the oil flow to the engine's top end. Also the crankcase cover may not seal correctly. To prevent these problems, the thread protector should be screwed onto the crankshaft before using the flywheel puller. See the image below depicting how the thread protector and flywheel puller should be used.

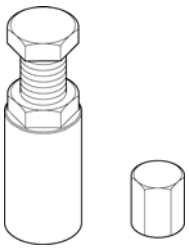


In some instances, the Service Manual specifically instructs to use the thread protector, however, in some manuals it is not mentioned. Nevertheless, in all cases the protector should be used. For some models the required thread protector is not the one included with the specified flywheel puller, in those cases you will be directed to use the protector from another flywheel puller.

FLYWHEEL PULLER AND THREAD PROTECTOR SET



070MC-HP1A100



07AMC-MEBA100

As indicated, all the flywheel pullers listed do come with a thread protector, as shown in the image above. However, the protectors can also be purchased separately. See the list on the following page for the correct flywheel puller/thread protector or combination of flywheel and thread protector for each model.

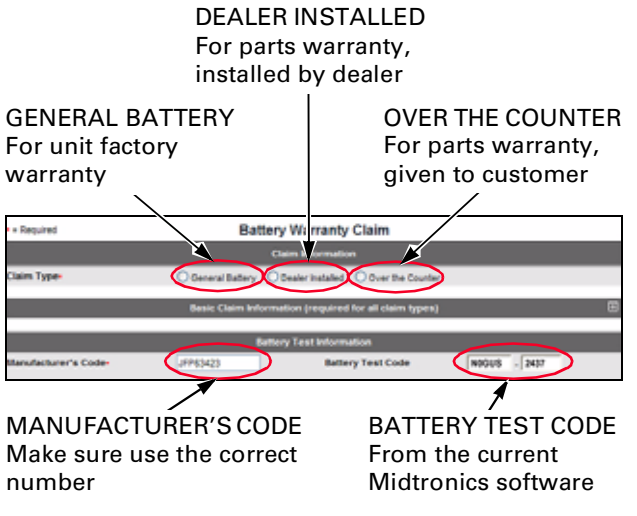
Model	Year(s)	Flywheel Puller	Thread Protector
TRX450R	2004-2005	070MC-HP1A100	070MC-HP1A110
TRX450R	2006-2009	070MC-HP1A100	07AMC-MEBA110
CRF250R	2004-2010	07AMC-MEBA100	07AMC-MEBA110
CRF250X	2004-2009	07AMC-MEBA100	07AMC-MEBA110
CRF450R	2005-2008	07AMC-MEBA100	07AMC-MEBA110
CRF450R	2009	070MC-HP1A100	07AMC-MEBA110
CRF450X	2005-2009	070MC-HP1A100	07AMC-MEBA110

Note that the Flywheel Puller 070MC-HP1A100 includes the 070MC-HP1A110 14mm Thread Protector. The Flywheel Puller 07AMC-MEBA100 includes the 07AMC-MEBA110 12mm Thread Protector.

A Word about Warranty

Battery Warranty Claims

When completing a battery warranty claim in ***iN***, it is important that you select the correct claim type from the three options listed at the top of the Battery Warranty Claim form; *General Battery, Dealer Installed*, and *Over the Counter*.



General Battery

Select this option only for the original battery covered under the unit's Factory Warranty.

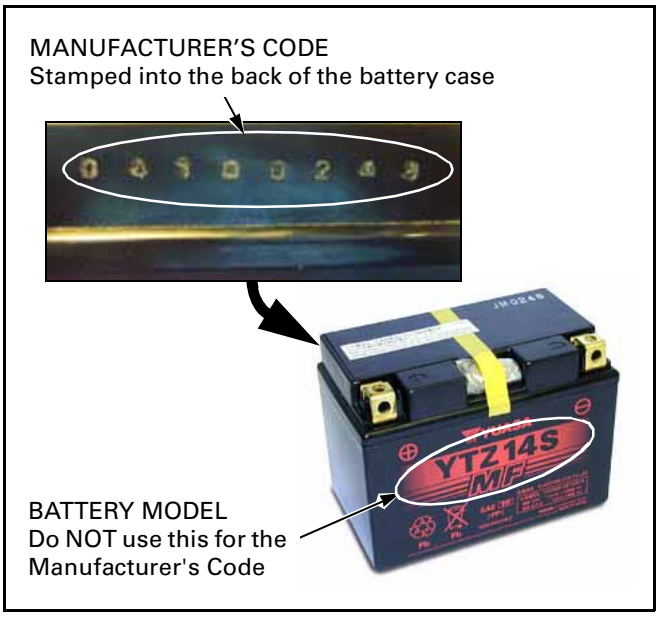
Dealer Installed

Select this option only for a battery installed by the dealer that is covered under the Replacement Parts Warranty.

Over the Counter

Select this option only for a battery given to the customer at the parts counter that is covered under the Replacement Parts Warranty.

We have also seen errors in the Manufacturer's Code field. The Manufacturer's Code is stamped into the case, it is NOT the battery model number. See the image below for an example of where you might find the 8-digit Yuasa Manufacturers code.


MANUFACTURER'S CODE
Stamped into the back of the battery case
YTZ14S
BATTERY MODEL
Do NOT use this for the Manufacturer's Code

Lastly, remember to used the most current Midtronics 404XL battery tester software to get the correct Battery Test Code.

Best Practices

Share your knowledge, tips, advice, and other best practices with other Honda technicians by submitting them to *The Wrench* editor for publication in an upcoming issue. Send submissions to the e-mail address listed below.

HONDA

THE WRENCH

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MSN 13062 (0912)